

CONFIDENTIAL

October 15, 1956

*File
24 hr clock*

MEMORANDUM FOR THE RECORD

SUBJECT: Waterproofing of the M-34 Detonator

The M-34 detonator is a detonator booster assembly used to initiate detonation in high-explosive charges. Initiation of the detonator is normally accomplished by one of two methods. One method is by stab friction from a firing pin having a 26° or - 3° point (see sketch) and the other by induced detonation from a detonator MK 33 Mod O.

The M-34 must be capable of standing 90 lb/sq in salt water pressure for a minimum of 6 hours. It shall be capable of withstanding 5 lb/sq in. salt water pressure for a period of 60 days. It should be capable of withstanding temperatures of 120°F for 20 hours per day and 160°F for 4 hours per day for a minimum of 10 days. It should be capable of withstanding 120°F for 4 hours per day and 100°F for 20 hours per day for a period of 30 days. It should be capable of withstanding a temperature of -40° for periods of 48 hours.

All above tests should be made with the threaded end of the detonator sealed with an approximate sealing plug. The thread is a $\frac{1}{2}$ " 26 Whitworth Major Dia. 5000 min Patch Diam. 4754 / .0051 Minor Dia. 4564 / .0042.

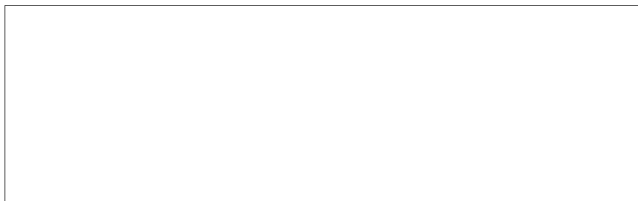
In addition to test s under water, the M-34 detonator should be tested after immersion in 6" of gasoline, kerosene, and various grades of fuel oil. Tests should cover a minimum of 24 hours, and a maximum of up to 45 days.

After weighing all test detonators should be test fired by a drop weight apparatus using the firing pin design attached.

All tests except those involving P.O.L. supplies should be made with a minimum of 10 M-34 detonators under any one condition.

All test detonators should be fired by using a firing pin as noted and under a condition to provide 48 inch ounces of energy to the point of the firing pin.

OK



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